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APPLICATION NO.	FILING DATE	FIRST-NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,730	09/29/2003	Jin Soo Han	2013P103	1938

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BLAKELY SOKOLOFF TAYLOR & ZAFMAN
12400 WILSHIRE BOULEVARD
SEVENTH FLOOR
LOS ANGELES, CA 90025-1030

EXAMINER

GARCIA, LUIS

ART UNIT PAPER NUMBER

2613

DATE MAILED: 12/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/673,730	Applicant(s) HAN ET AL.	
	Examiner Luis F. Garcia	Art Unit 2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-2 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. **Claims 1 is rejected** under 35 U.S.C. 103(a) as being unpatentable over Chraplyvy et al (US 6,580,536) hereinafter referred to as Chraplyvy.

Regarding claim 1, Chraplyvy discloses a channel allocation method in a multirate optical WDM transmission system (**ABSTRACT**), the method comprising:

selecting a channel having the lowest transmission speed from not allotted channels (**col3 ln33-45 in which a channel with the lowest bit rate (lowest transmission speed) is selected for assignment**);

allotting the selected channel to the longest wavelength band of empty wavelength bands (**col3 ln33-45 in which the lowest bit rate channel is assigned outside the passband region of flat gain, e.g. assigned to the longest wavelength band of unassigned wavelengths (FIG. 3- lowest bit rate channel-308 is assigned to longest wavelength region-304)**); and

Chraplyvy does not expressly disclose determining whether not allotted channels exist in order to repeatedly perform selecting the channel having the lowest transmission speed from the not allotted channels and allotting the selected channel to

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the longest wavelength band of the empty wavelength bands, until all the channels are allotted.

However, it would have been obvious to one of ordinary skill in the art at the time of invention to continue to allocate needed wavelength channels according to Chraplyvy's scheme, e.g. FIG. 4- continue to assign wavelength channels one by one. The motivation being that this allows traffic demand to be met by the system while at the same time improving transmission performance via Chraplyvy's channel allocation scheme-col3 In33-45/ABSTRACT.

2. **Claim 2 is rejected** under 35 U.S.C. 103(a) as being unpatentable over Chraplyvy in view of Roux et al (US 2003/0007723) hereinafter referred to as Roux.

Regarding claim 2, Chraplyvy discloses the method of claim 1 as applied above.

Chraplyvy does not expressly disclose wherein the bands include a short wavelength band of C-band and a long wavelength band of L-band. However, it would have been well know in the art at the time of invention that Chraplyvy's amplifier passband (e.g. Chraplyvy FIG. 4 (302-passband)) can be in the C-band (e.g C-band: 1525-1565 nm, among other well known and commonly used wavelength bands) as shown by cited reference Roux (FIG. 1, 5 in which the optical amplifier has a pass/gain band located in the C-band region); thereby, allowing the lower bit rate channels to be allocated to the longer wavelength band (e.g. L-band).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luis F. Garcia whose telephone number is (571)272-7975. The examiner can normally be reached on 8-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ken N. Vanderpuye can be reached on (571)272-3078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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KENNETH VANDERPUYE
SUPERVISORY PATENT EXAMINER